



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Transformations in Lighting

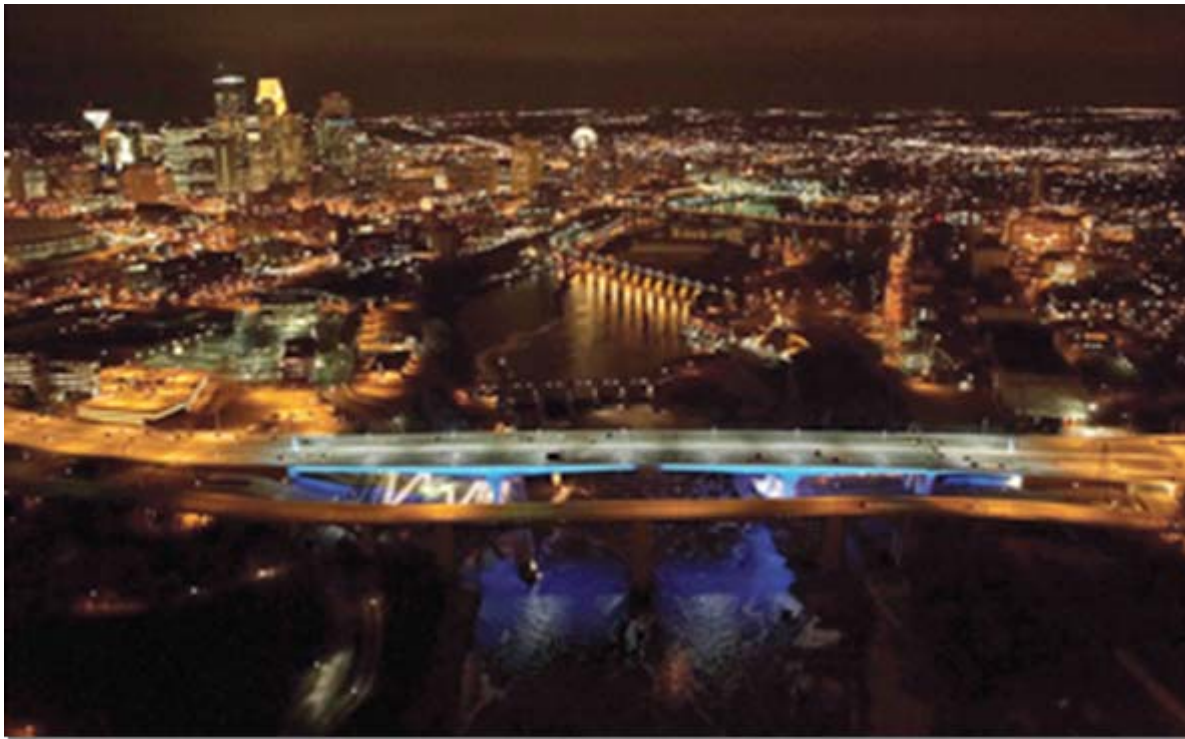
DOE Solid-State Lighting R&D Workshop

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San Francisco, CA
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What's New?





Getting It Right



Cree LR4, Lighting for Tomorrow Winner, Downlight Category



Cree LR24, Honorable Mention for Efficacy and Innovation



The Oakland Experiment



*Phase III BetaLED
Luminaires:*

*Energy savings increased by
25% relative to Phase II*

*Luminaire costs decreased by
34% between Phase II and III*



Products Flooding the Market

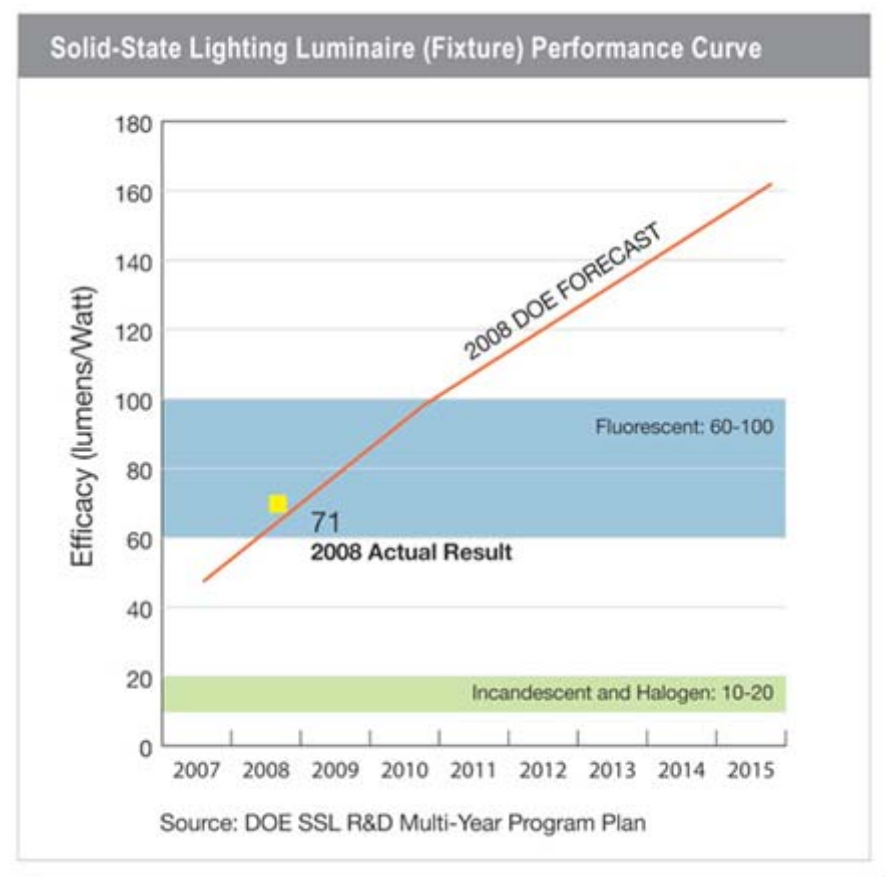
- Some are very good, some are not
 - Low light output
 - Poor or inconsistent color quality
 - Exaggerated performance claims
- Same issues, lessons learned from CFL market introduction
- We know what needs to be done





Challenge for This Group

- Solve technology issues impeding market acceptance
- Halfway there
 - Comparable to CFLs
 - Headed in right direction
- What is the ultimate technology limit?
- Find the balance: efficacy, color, cost





What Can DOE Do?

- Fund targeted R&D efforts
 - Shift in focus as technology matures
- Drive technology innovation
 - L Prize
- Promote “Truth in Advertising”
 - Expand CALiPER
 - Launch SSL Quality Advocates
- Convene workshops, roundtables, meetings
 - February R&D Workshop
 - April Manufacturing Workshop
 - July Market Introduction Workshop





What Can You Do?

Here in San Francisco...

- Learn from your colleagues
 - R&D progress reports
 - Lessons learned from demonstrations, CALiPER results
- Contribute to breakout sessions on DOE R&D priorities
- Network, network, network

After San Francisco...

- Participate in DOE programs
 - R&D, GATEWAY demonstrations, SSL Quality Advocates, L Prize, Next Generation Luminaires, Lighting for Tomorrow



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***There are no speed
limits on the road
to excellence.***

– David W. Johnson

